

IN THE CLAIMS:

Please amend the claims as follows.

Claim 1 (Currently Amended): A photomultiplier comprising:

an enclosure having an inside kept in a vacuum state, said enclosure whose at least part is constructed by a glass substrate having a flat part;

a photocathode, accommodated in said enclosure, emitting a photoelectron to the inside of said enclosure in response to light captured through said enclosure;

an electron multiplier section, arranged on a predetermined area of the flat part in said glass substrate, for multiplying in a cascading manner the photoelectrons emitted from said photocathode; and

an anode, arranged on an area excluding the area where said electron multiplier section is arranged on the flat part in said glass substrate, for taking out electrons having arrived thereat among electrons multiplied in a cascading manner in said electron multiplier section as a signal, wherein said anode is comprised of a silicon material.

Claim 2 (Currently Amended): A photomultiplier according to claim 1, wherein said enclosure comprises a lower frame comprised of [[a]] said glass substrate; an upper frame opposing said lower frame; and a side wall frame, provided between said upper frame and said lower frame, having a form surrounding said electron multiplier section and said anode.

Claim 3 (Currently Amended): A photomultiplier according to claim 2, wherein said electron multiplier section and said anode are arranged on the flat part [[in]] of said glass

substrate while in a state separated by a predetermined distance from said side wall frame constituting a part of said enclosure.

Claim 4 (Previously Presented): A photomultiplier according to claim 2, wherein said side wall frame is comprised of a silicon material.

Claim 5 (Currently Amended): A photomultiplier according to claim 2, wherein said upper frame is comprised of ~~one of a glass material and silicon material.~~

Claim 6 (Previously Presented): A photomultiplier according to claim 1, wherein said electron multiplier section is comprised of a silicon material.

Claim 7 (Canceled).

Claim 8 (Currently Amended): A photomultiplier according to claim 1, wherein each of said electron multiplier section and said anode is comprised of a silicon material, said electron multiplier section and said anode being in direct contact with and fixed to the flat part in said glass substrate ~~by one of anodic bonding and diffusion bonding.~~

Claim 9 (Currently Amended): A photomultiplier according to claim 2, wherein each of said electron multiplier section, said anode, and said side wall frame is comprised of a silicon material, said electron multiplier section, said anode, and said side wall frame being in direct contact with and fixed to the flat part in said glass substrate ~~by one of anodic bonding and diffusion bonding.~~

Claim 10 (Currently Amended): A photomultiplier according to claim 4, wherein said upper frame is comprised of a glass material; and

wherein said upper frame is in direct contact with and joined to said side wall frame by ~~one of anode bonding and diffusion bonding~~ such that said upper frame and said lower frame sandwich said side wall frame therebetween.

Claim 11 (Original): A photomultiplier according to claim 5, wherein said upper frame has a transmitting window for taking light into said enclosure.

Claim 12 (Canceled).

Claim 13 (Currently Amended): A method of manufacturing the photomultiplier according to claim 2, said method comprising the steps of:

preparing [[a]] said lower frame, comprised of a glass material, constituting a part of said enclosure;

preparing [[a]] said side wall frame constituting a part of said enclosure, said side wall frame being formed together with said electron multiplier section and said anode by etching a single silicon substrate;

preparing [[an]] said upper frame constituting a part of said enclosure; and

fixing said side wall frame to said lower frame together with said electron multiplier section and said anode ~~by one of anodic bonding and diffusion bonding~~ while making said side wall frame be in direct contact with said lower frame.

Claim 14 (Currently Amended): A method of manufacturing a photomultiplier comprising an enclosure constructed by a lower frame, a side wall frame, and an upper frame, while having an inside kept in a vacuum state, a photocathode accommodated in said enclosure, an electron multiplier section accommodated in said enclosure, and an anode at least partly accommodated in said enclosure, said method comprising the steps of:

preparing [[a]] said lower frame, comprised of a glass material, constituting a part of said enclosure;

preparing [[a]] said side wall frame, comprised of a silicon material, constituting a part of said enclosure;

preparing [[an]] said upper frame constituting a part of said enclosure; and

fixing said side wall frame to said lower frame ~~by one of anode bonding and diffusion bonding~~ while making said side wall frame be in direct contact with said lower frame,
wherein said anode of said photomultiplier is comprised of a silicon material.

Claim 15 (Currently Amended): A method according to claim 13, wherein said upper frame is comprised of a glass material; and

wherein said upper frame is in direct contact with and joined to said side wall frame ~~by one of anode bonding and diffusion bonding~~ such that said upper frame and said lower frame sandwich said side wall frame therebetween.

Claim 16 (Canceled).

Claim 17 (Previously Presented): A method according to claim 13, wherein said upper frame is formed with a transmitting window for taking light into said enclosure.

Claim 18 (Canceled).

Claim 19 (Currently Amended): A method according to claim 14, wherein said upper frame is comprised of a glass material; and

wherein said upper frame is in direct contact with and joined to said side wall frame ~~by one of anode bonding and diffusion bonding~~ such that said upper frame and said lower frame sandwich said side wall frame therebetween.

Claim 20 (Canceled).

Claim 21 (Previously Presented): A method according to claim 14, wherein said upper frame is formed with a transmitting window for taking light into said enclosure.

Claim 22 (Canceled).